

REMARKS

The last Office Action of May 22, 2000 has been carefully considered. Reconsideration of the instant application in view of the foregoing amendments and the following remarks is respectfully requested.

Claims 1-21 are pending in the application.

It is noted that claims 12, 19 and 21 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-5 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Pat. No. 5,667,053 (hereinafter "Rohrle").

Claims 1, 4-20 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Pat. No. 5,911,628 (hereinafter "Sudau").

Claim 11 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Sudau.

It is noted with appreciation that claims 13-16, 18 and 20 are indicated allowable if rewritten to include all of the limitations of the base claim and any intervening claims.

It is noted with appreciation that claims 12 and 19 are indicated allowable if rewritten to overcome the rejection under 35 U.S.C. §112 and to include all of the limitations of the base claim and any intervening claims.

REJECTION UNDER 35 U.S.C. §112, SECOND PARAGRAPH

Applicant has amended claims 12, 19 and 21 to address the objections, raised by the Examiner. More specifically, these claims have been amended by providing antecedent basis for all elements set forth.

Withdrawal of the rejection of the claims 12, 19 and 21 under 35 U.S.C. §112, second paragraph is thus respectfully requested.

REJECTION UNDER 35 U.S.C. §102(e) AS BEING ANTICIPATED BY ROHRLE OR SUDAU

The rejection under 35 U.S.C. 102(e) is respectfully traversed.

The present invention is directed to a torsional vibration damper which includes two modules resiliently coupled by a plurality of tangentially arranged compression springs which are received in a spring chamber. A problem encountered with conventional vibration dampers is the escape of lubricant or grease out of the spring chamber during operation as a result of centrifugal forces that tend to move the lubricant radially outward. A primary object of the present invention is thus the provision of a sufficient seal of the spring chamber to prevent the escape of lubricant. In accordance with the invention, this object is attained by providing the one of the modules with a first guide surface which seals the spring chamber radially outward and is located at a distance to the other one of the modules, and by providing a radial second guide surface by

which the gap is covered on the spring chamber side.

The Rohrle reference describes a torsional damper which has two modules (12, 14) which rotate with respect to one another and are resiliently coupled by a plurality of springs (32). One of the modules (12) includes a plate (20) which is connected to a disc (34), whereas the other module (14) includes a plate (26) connected to a disc (36) by rivets (39). In this context, applicant believes that the Examiner confused the reference numerals "34" and "36" when associating these parts to the modules. Placed between confronting sides of the discs 34, 36 is a support surface (60b) which the Examiner equates with the first guide surface (30) of the present invention, and placed between the disc (36) and the plate (20) is a second support surface (60a) which the Examiner equates with the second guide surface (50) of the present invention. Applicant respectfully disagrees with this line of reasoning.

As set forth in claim 1, the first guide surface (30) is part of the first module and placed in the gap between the modules whereas the second guide surface (50) is received in this same gap to bridge the area of the gap. In contrast thereto, the support surface (60b) is an end face of the disc (34) for interaction with a metal ring (52b) which is placed loosely in a gap between the discs (34) and (36) and thus does not form part of one of the modules, whereas the other support surface (60a) is an inside surface of the plate (20) for interaction with a metal ring (52a) received in another gap demarcated between the plate (20) and the disc (36). Thus, Rohrle defines different gaps in which the support surfaces (60a) and (60b) are received whereby the sealing action is realized through

cooperation with another component.

For the reasons set forth above, it is applicant's contention that Rohrle fails to teach or suggest the features of the present invention, as recited in claim 1.

With respect to the Sudau reference, applicant assumes that the rejection of claims 12-16, 18 and 20 in this context was done in error as these claims were indicated allowable.

Sudau describes a torsional vibration damper which includes a planetary gear train, whereby the seal is disposed in vicinity of the planetary gear mechanism. As a consequence of the centrifugal force, grease is prevented from escaping the spring chamber and flow through the planetary gear mechanism toward the seal. Thus, Sudau is not concerned with the sealing of a spring chamber but with a sealing of the planetary gear mechanism.

For the reasons set forth above, it is applicant's contention that Sudau fails to teach or suggest the features of the present invention, as recited in claim 1.

Applicant further submits herewith new claims 22 to 24 which are made dependent from claim 1 and a new independent claim 25. More specifically, the subject matter of new claim 22 sets forth the particular location of the gap. As clearly shown, for example, in Fig. 1, the gap is disposed at a level of the spring chamber. A comparison of Fig. 1 of the present invention with Fig. 1 of Rohrle and Fig. 1 of Sudau clearly shows the difference in the location of the gap (or gaps as in Rohrle) and the location where the sealing action is intended. Claim 23 sets forth that the second guide surface may be secured either to the

first module or to the second module. Support therefore can be found in the drawing, e.g., embodiments of Fig. 1 and Fig. 12 and related description.

Claim 24 refers specifically to the soldered connection of the guide surface (30), i.e. baffle, to the first module. The use of soldering in this context is advantageous because of the resultant tight seal and simplified procedure. Support therefore can be found on page 3, lines 2-3 of the instant specification. Newly submitted independent claim 25 is directed, in general, to a torsional vibration damper that again expressly recites the soldered connection of the guide surface (30), i.e. baffle, to the first module.

For the reasons set forth above, it is applicant's contention that neither Rohrle nor Sudau, nor a combination thereof teaches or suggests the features of the present invention, as recited in claims 1 and 25.

As for the rejection of the dependent claims 2-10, 12-24, these claims depend on claim 1, share its presumably allowable features, and therefore it is respectfully submitted that these claims should also be allowed.

Withdrawal of the rejection under 35 U.S.C. §102(e) and allowance of claims 1-10 and 12-25 are thus respectfully requested.

REJECTION UNDER 35 U.S.C. §103(a)

Claim 11 depends from claim 1 and therefore contains all the limitations thereof, so that claim 11 patentably distinguishes over the applied prior art in the same manner as claim 1.

Withdrawal of the rejection under 35 U.S.C. §103(a) and allowance of claim 11 is thus respectfully requested.

CLARIFICATION AMENDMENT

Claim 28 has been amended to address the objection raised by the Examiner with respect to this claim as well as to claim 20. Claim 2 has been amended to correct an obvious error with respect to the reference number involved.

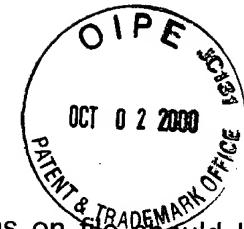
CITED REFERENCES

Applicant has also carefully scrutinized the further cited prior art and finds it without any relevance to the newly submitted claims. It is thus felt that no specific discussion thereof is necessary.

CONCLUSION

Applicant believes that when the Examiner reconsiders the claims in the light of the above comments, he will agree that the invention is in no way properly met or anticipated or even suggested by any of the references however they are considered.

In view of the above presented remarks and amendments, it is respectfully



submitted that all claims on file should be considered patentably differentiated over the art and should be allowed.

Reconsideration and allowance of the present application are respectfully requested.

Should the Examiner consider necessary or desirable any formal changes anywhere in the specification, claims and/or drawing, then it is respectfully requested that such changes be made by Examiner's Amendment, if the Examiner feels this would facilitate passage of the case to issuance. If the Examiner feels that it might be helpful in advancing this case by calling the undersigned, applicant would greatly appreciate such a telephone interview.

The fee of \$36.00 for submitting four additional claims in excess of twenty is enclosed herewith.

The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. 06-0502.

Respectfully submitted,

By: _____

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